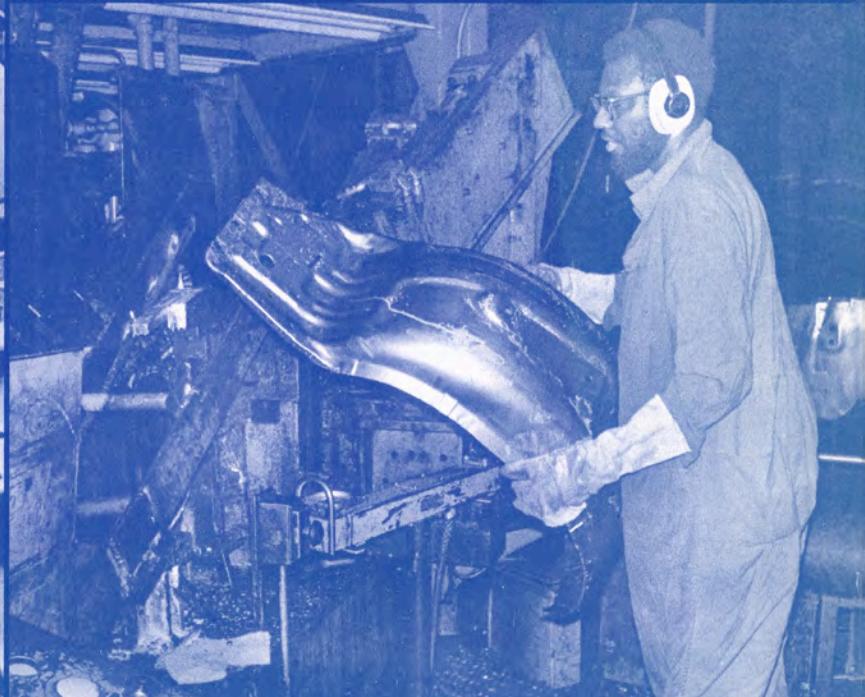


Occupational Noise Exposure

Revised Criteria 1998



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

CDC
CENTERS FOR DISEASE CONTROL
AND PREVENTION

$$D = [C_1/T_1 + C_2/T_2 + C_n/T_n] \times 100$$

where

C_n = total time of exposure at a specified noise level, and
 T_n = exposure duration for which noise at this level becomes hazardous.

The daily dose can be converted into an 8-hr TWA according to the following formula (or as shown in Table 1-2):

$$\text{TWA} = 10.0 \times \text{Log}(D/100) + 85$$

Table 1-1. Combinations of noise exposure levels and durations that no worker exposure shall equal or exceed

Exposure level, L (dBA)	Duration, T			Exposure level, L (dBA)	Duration, T		
	Hours	Minutes	Seconds		Hours	Minutes	Seconds
80	25	24	–	106	–	3	45
81	20	10	–	107	–	2	59
82	16	–	–	108	–	2	22
83	12	42	–	109	–	1	53
84	10	5	–	110	–	1	29
85	8	–	–	111	–	1	11
86	6	21	–	112	–	–	56
87	5	2	–	113	–	–	45
88	4	–	–	114	–	–	35
89	3	10	–	115	–	–	28
90	2	31	–	116	–	–	22
91	2	–	–	117	–	–	18
92	1	35	–	118	–	–	14
93	1	16	–	119	–	–	11
94	1	–	–	120	–	–	9
95	–	47	37	121	–	–	7
96	–	37	48	122	–	–	6
97	–	30	–	123	–	–	4
98	–	23	49	124	–	–	3
99	–	18	59	125	–	–	3
100	–	15	–	126	–	–	2
101	–	11	54	127	–	–	1
102	–	9	27	128	–	–	1
103	–	7	30	129	–	–	1
104	–	5	57	130–140	–	–	<1
105	–	4	43	–	–	–	–